



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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September 29, 1995

Mr. Frederick D. Fox
Director, Environmental Affairs
Kennecott Utah Copper Corporation
8315 West 3595 South
P.O. Box 6001
Magna, Utah 84044-6001

Re: Preliminary Review of Permit Amendment, Kennecott Utah Copper Corporation, Bingham Canyon Mine, M/035/002, Salt Lake County, Utah

Dear Mr. Fox:

The Division has performed a *cursory* review of your September 13, 1995 permit amendment application to construct a new road and water control ponds within Dry Fork Canyon of the Bingham Canyon Mine. We understand the urgency under which you are seeking approval for this project amendment with the winter season nearly upon us; we have tried to accommodate you to the extent possible. Unfortunately, as I recently informed Mr. Jon Cherry of your staff, we are presently in a permitting backlog mode and my staff is tied up with the review of a number of other permits received prior to yours. Consequently, a limited number of my technical staff have been able to perform a preliminary review of the application at this time. We have identified a few of the more obvious permitting concerns that will need to be addressed before we can consider issuing our approval of the proposal. We have referenced the appropriate Rule number where possible. Please format your response in a similar manner.

R647-4-105.2.12 Maps and Drawings

The surface facilities map (Drwg. No. 451-T-3861) must be modified to provide a clear border outlining the acreage proposed to be disturbed by the mining operations. We ask that the disturbed areas within this border be labelled with the actual number of disturbed acres by area (as currently shown for the topsoil stockpiles).

R647-4-105.3.15 Maps and Drawings - Sediment Ponds, Diversions, Culverts, etc.

The plan amendment does not contain sufficient information to assess the proposed designs for the 3 and 6 acre catch basins, the drop shaft and its associated underground connections to the existing Dry Fork Tunnel. Design calculations for sizing these structures, including emergency overflow provisions, pond maintenance procedures, and detailed design drawings of these structures are required. The proposed locations and sizing calculations for the proposed access road drainage



culverts are also necessary. Drwg. No. 451-T-3861 could probably be modified to show the culvert locations and sizes. What energy dissipation measures will be implemented to minimize downslope erosion below the discharge ends of these culverts?

R647-4-105.3.17 Maps and Drawings - Reclamation Treatment Map(s)

The plan amendment should include a reclamation activities and treatment map to identify the location and extent of the reclamation work to be accomplished by the operator upon cessation of mining operations. This map should identify surface areas which will be disturbed by the operator, but will not be reclaimed, such as solid rock slopes, cuts, roads, or sites of buildings or surface facilities to be left as part of the postmining land use.

R647-4-106.5 Operations Plan - Topsoil Description

The proposal contains no description (analysis) of the soils to be impacted. The soils will need to be analyzed prior to reapplication to determine what soil amendments may be required to assure adequate soil fertility. The plan does not contain a volume estimate of the suitable soil that is planned to be salvaged and stockpiled. Please provide this information so it can be made a part of the plan.

R647-4-106.6 Operations Plan - Topsoil Protection

Please provide a description of the method(s) to be employed to protect stockpiled soils.

R647-4-106.7 Operations Plan - Vegetation Description

Please provide a description of the existing vegetative communities and cover levels. If this is in the current Bingham Canyon mine plan, please reference the appropriate location (volume & page) where this information can be found.

R647-4-110.2 Reclamation Plan

On pages 6-7, Section V. Reclamation Plan, the applicant describes the long-term plans for the water management facilities. It is anticipated that the facilities will be in place for at least 25 years, and perhaps longer. Plans for reclamation of the access road to the ponds are included, but no plans for reclamation of the ponds or drop shaft are proposed. The access road reclamation plan should be modified to include provisions to retrieve some of the downcast materials back up onto the road surface to assist in the recontouring efforts.

It seems reasonable to assume that once the access road is no longer needed to service and maintain the ponds and drop shaft facilities, that these structures would also no longer be required for continued operations. Therefore, the Division requests detailed plans describing how these facilities will be reclaimed when no longer required for operations. When and if these containment facilities

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are decommissioned, how will surface runoff be managed to minimize acid-generation problems that could result if water again impounds behind and infiltrates through the Dry Fork Dump?

R647-4-113.3 Reclamation Surety

Kennecott has requested that the reclamation surety requirement be waived for this proposal. Kennecott justifies this request based upon the small size of the disturbed area proposed (@33 acres) when compared to the originally approved Bingham Canyon mine disturbance (23,000 acres). Further justification given is that the new impacted areas will now be incorporated into the annual facility wide reclamation program. It is not clear exactly what is intended by this last statement.

Reclamation of disturbances associated with the Bingham Canyon Mine are presently covered under a Board (self-bonding) Contract. No reclamation cost estimate was ever prepared for the Bingham Canyon Mine which was originally approved in 1978 under the old rules. Rule R647-4-113.3 (effective December 1988) requires the notice of intention to contain a determination/estimate of the costs required to reclaim the site. Typically, the Division reviews an operator's reclamation surety estimate and adjusts it to reflect the Division's cost to reclaim the site. The Division requests a reclamation surety estimate from Kennecott with a breakdown of anticipated costs to reclaim the disturbances associated with this proposal. Kennecott must also propose its preferred form of reclamation surety. As you are aware, the amount and form of reclamation surety must be approved by the Board of Oil, Gas and Mining.

Please contact me at your convenience, should you have questions or concerns with these review comments, or if you wish to sit down and discuss them in more detail.

Sincerely,



D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
cc: Lowell Braxton
Jon Cherry, KUC
Minerals staff (route)
M035002.amd